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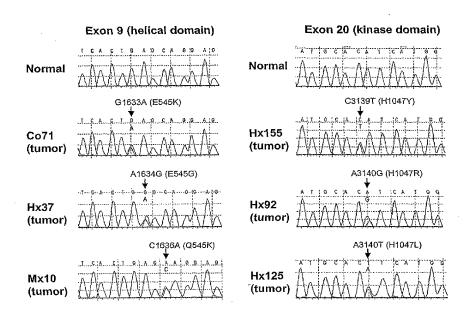
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- (71) Applicant (for all designated States except US): THE JOHNS HOPKINS UNIVERSITY [US/US]; 3400 N. Charles Street, Baltimore, MD 21218 (US).
- (72) Inventors; and
- **Inventors/Applicants** (for US only): SAMUELS, Yardena [IL/US]; 6712 Bonnie Ridge Drive, Apt. #202, Baltimore, MD 21209 (US). VELCULESCU, Victor [US/US]; 14064 Big Branch Drive, Dayton, MD 21036 (US). KINZLER, Kenneth, W. [US/US]; 1403 Halkirk Way, Bel Air, MD 21015 (US). VOGELSTEIN, Bert [US/US]; 3700 Breton Way, Baltimore, MD 21208 (US).

- (74) Agent: KAGAN, Sarah, A.; Banner & Witcoff, Ltd., 1001 G Street, N.W., 11th Floor, Washington, DC 20001-4597 (US).
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(54) Title: MUTATIONS OF THE PIK3CA GENE IN HUMAN CANCERS



(57) Abstract: Phosphatidylinositol 3-kinases (PI3Ks) are known to be important regulators of signaling pathways. To determine whether PI3Ks are genetically altered in cancers, we analyzed the sequences of the P13K gene family and discovered that one family member, PIK3CA, is frequently mutated in cancers of the colon and other organs. The majority of mutations clustered near two positions within the P13K helical or kinase domains. PIK3CA represents one of the most highly mutated oncogenes yet identified in human cancers and is useful as a diagnostic and therapeutic target.



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